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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,676	08/08/2003	Thomas B. Thrash JR.	716909.22	1675
27128	7590	02/10/2006		
BLACKWELL SANDERS PEPER MARTIN LLP 720 OLIVE STREET SUITE 2400 ST. LOUIS, MO 63101				
			EXAMINER HEPPERLE, STEPHEN M	
			ART UNIT 3753	PAPER NUMBER

DATE MAILED: 02/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/604,676	Applicant(s) THRASH ET AL.	
	Examiner Stephen M. Hepperle	Art Unit 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) 19-52 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/10/03</u> . | 6) <input type="checkbox"/> Other: _____ |

Applicant's election with traverse of the species of Fig. 1 in the reply filed on 14 July 2005 is acknowledged. The traversal is on the ground(s) that the valves are similar and there would not be separate searches. This is not found persuasive because different species are necessarily similar. Patentable distinction (in the absence of an allowed generic claim) is the basis for an election requirement. It is also not necessary that the search be different, although in the instant case, there are differences in the required search.

Applicant's assertion that claim 1 is still not seen as generic. For example, claim 1 recites removable coaxial adapters, which are not seen by the examiner at least in Figs. 2-4 and 8.

The requirement is still deemed proper and is therefore made FINAL.

Claims 19-52 stand withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 14 July 2005.

Claims 2-5 and 10-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims are seen only as recitations of desired performance, not structural limitations.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hope et al. in view of Sarlls. Hope shows an underwater shuttle valve (Fig. 6) comprising a body 102 to which two coaxial adapters 106, 108, are attached to hold a shuttle. The shuttle has a collar and tubular portions at either end that slide within the adapters between metal valve seats at the inner ends of the adapters. Not shown are skirts at each adapter closely fitting the outer periphery of the collar (seen as the recited band). Sarlls shows a similar shuttle valve, but with a skirt 31 at each adapter 23 that has a clearance of roughly .01 inches with the band of shuttle collar 67. The collar and skirt form a dampening chamber 45 to provide cushioning. It would have been obvious at the time the invention was made to add skirts to the Hope shuttle with very close fit in order to provide cushioning and extend the life of the valve. It would have been obvious to use the Hope device at any desired depth, including 10,000 feet, as Hope is designed for 5000 psi, which corresponds to the water pressure at a depth of roughly 11,000 feet. Regarding the clearance dimensions, it would have been obvious to one of ordinary skill to size the clearances as tight as needed to get the desired results. It is well known that tighter clearances result in greater damping, and so specific dimensions or ratios are not seen as providing a patentable distinction. Therefore, any clearance and or recited damping force (claims 16 and 17) are seen as ordinary obvious practice of one having ordinary skill in the art. Regarding claims 8-15, it would have been obvious to replace an older design valve with a newer design. The new valve inherently comprises a "retrofit kit", and the process of changing an older device for a newer one as recited in claim 18 is seen as necessary to upgrade equipment. Alternatively, it would have been obvious

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to replace only the shuttle valve (the parts that differ from the previous model) and save the pipes, manifold, etc. as a cost saving measure.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kuenzel shows a shuttle valve similar to Sarlls.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Hepperle whose telephone number is 571-272-4913. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene can be reached on 571-272-4930. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Stephen M. Hepperle
Primary Examiner
Art Unit 3753

SMH